

CLAIMS

What is claimed is:

1. A method for multicasting a plurality of receiver membership reports containing receiver information for a plurality of multicast source systems, the method comprising the steps of:
 - collecting receiver information for the plurality of multicast source systems;
 - aggregating receiver information for each multicast source system into a respective record;
 - aggregating the plurality of respective records into a single message; and
 - multicasting the single message to a group address.
2. The method of claim 1, wherein the step of aggregating receiver information further comprises the step of:
 - indexing each respective record using an address associated with each multicast source system.
3. The method of claim 2, wherein the address is an IP address of each multicast source system.
4. The method of claim 1, wherein receiver information comprises a source identifier, a multicast group, and a group record.
5. The method of claim 4, wherein the group record comprises one of Transmit and Hold.
6. The method of claim 1, further comprising the steps of:
 - accessing a corresponding respective record from the single message; and

4 enabling each multicast source system to respond based
5 upon the receiver information in each corresponding respective
6 record.

1 7. The method of claim 1, wherein the method operates
2 according to a multicast source notification of interest
3 protocol.

1 8. A computer signal embodied in a carrier wave readable by
2 a computing system and encoding a computer program of
3 instructions for executing a computer process performing the
4 method recited in claim 1.

1 9. A system for multicasting a plurality of receiver
2 membership reports containing receiver information, the system
3 comprising:

4 a plurality of multicast source systems for receiving
5 receiver information; and

6 a router for collecting receiver information for the
7 plurality of multicast source systems; aggregating receiver
8 information for each multicast source system into a respective
9 record; aggregating the plurality of respective records into a
10 single message; and multicasting the single message to a group
11 address.

1 10. The system of claim 9, wherein the router indexes each
2 respective record using an address associated with each
3 multicast source system.

1 11. The system of claim 10, wherein the address is an IP
2 address of each multicast source system.

1 12. The system of claim 9, wherein receiver information

2 comprises a source identifier, a multicast group, and a group
3 record.

1 13. The system of claim 9, wherein each multicast source
2 system accesses a corresponding respective record from the
3 single message and responds based upon the receiver
4 information in each corresponding respective record.

1 14. The system of claim 9, wherein multicasting the plurality
2 of receiver membership reports operates according to a
3 multicast source notification of interest protocol.

101 15. An article of manufacture for multicasting a plurality of
102 receiver membership reports containing receiver information
103 for a plurality of multicast source systems, the article of
104 manufacture comprising:
105 at least one processor readable carrier; and
106 instructions carried on the at least one carrier;
107 wherein the instructions are configured to be readable
108 from the at least one carrier by at least one processor and
109 thereby cause the at least one processor to operate so as to:
110 collect receiver information for the plurality of
111 multicast source systems;
112 aggregate receiver information for each multicast source
113 system into a respective record;
114 aggregate the plurality of respective records into a
115 single message; and
116 multicast the single message to a group address.

1 16. The article of manufacture of claim 15, wherein the at
2 least one processor is further caused to operate so as to:
3 index each respective record using an address associated
4 with each multicast source system.

1 17. The article of manufacture of claim 16, wherein the
2 address is an IP address of each multicast source system.

1 18. The article of manufacture of claim 15, wherein receiver
2 information comprises a source identifier, a multicast group,
3 and a group record.

1 19. The article of manufacture of claim 15, wherein the at
2 least one processor is further caused to operate so as to:
3 access a corresponding respective record from the single
4 message; and
5 enable each multicast source system to respond based upon
6 the receiver information in each corresponding respective
7 record.

1 20. The article of manufacture of claim 15, wherein the
2 article of manufacture operates according to a multicast
3 source notification of interest protocol.